

CENTER FOR HUMAN RADIOBIOLOGY

Argonne National Laboratory • Massachusetts Institute of Technology • New Jersey Field Station • Southwest Field Station

August 22, 1977

The Right Reverend Msgr. James McAniff
St. Mary's Church
15 South Street
Rochester, New York, 14607

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RECORDS ROOM

Dear Monsignor McAniff:

Enclosed is a copy of a letter which was recently received from Mr. Charles E. Davis of the Paul W. Harris Funeral Home, Inc. relating to the disinterment of the late Mr. . I 40-015
believe that you and Dr. Jan Lieben of our staff discussed this matter on April 5, 1977.

As requested by you we are enclosing xerox copies of the signed permission forms from all known living next-of-kin of Mr.

In regard to your second request that we provide a statement "that the cemetery is absolutely free from all responsibility in regards to possible law suits, etc. which could arise now or at any date in the future", we hope that the following will be satisfactory.

First of all, all known living next-of-kin have given their permission for the disinterment. As you will see in the disinterment form we instruct the cemetery that the grave site must be restored to its original condition both after disinterment and also after reinterment. We believe that there should be no problems which might be initiated by any of the next-of-kin, and in fact we have never had any problems with next-of-kin during the many years we have been carrying out this most important research work.

Secondly, in the past some cemetery superintendents have inquired about quantitative information concerning the handling of bodies of persons who have been exposed to radioactive materials. We can assure you, and the cemetery personnel, that there is no medically significant radiation from such bodies, and no possibility of transfer of radioactivity to persons handling them. They

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can be regarded exactly like any other body.

This follows from the fact that the amount of radioactivity retained by these persons is extremely small. The biological effects on the person ingesting the material arise because the material becomes fixed in their skeletal tissues, where the alpha radiations can irradiate the bone cells continuously for a period of many years or several decades. These alpha radiations have a range of only two-thousandths (2/1000's) of an inch. The alpha rays which may have produced biological effects in the deceased have such a short range that none of them can emerge. They cannot be detected outside the body.

The total amount of radioactive material contained in the body of Mr. is less than 0.4 microcuries. or 0.0004 millicuries. This is an even smaller amount of radioactivity than the radium that is contained on the face of a typical luminous dial of a watch or clock.

It is now customary in medical practice to administer radioactive isotopes for the treatment of various kinds of illnesses. Occasionally persons die in the hospital while they still contain large amounts of radioactive isotopes, such as radioactive iodine, radioactive gold, or radioactive phosphorus. The National Committee on Radiation Protection studied this situation carefully and in 1958 issued its conclusions in the U. S. National Bureau of Standards Handbook 65 titled "Safe Handling of Bodies Containing Radioactive Isotopes". On page 3 of this handbook, in discussing the possible radiation exposure to a surgeon, pathologist, or embalmer, the Committee remarked, "It is important for members of these groups to realize the existence and the magnitude of this problem and to know how to meet it. It is equally important not to exaggerate the danger and not to be unreasonably fearful when the hazard is minimal or nonexistent.". And on page 4, as a guide line for bodies which could be considered as essentially nonradioactive, "A body containing less than 30 millicuries may be released directly to the funeral director for embalming without the advice of a safety officer.". You will note that this cut-off at 30 millicuries is 75,000 times greater than the radioactive content of Mr. S. Thus, there is no question that this minute amount of radioactivity is completely negligible from the standpoint of persons dealing with the deceased.

We will be glad to supply any other information you may wish.

Sincerely yours,

s
xc: M.H.Chalfen, A.F.Stehney,
J.E.Farnham, J.Lieben
R.A.Schlenker

Mary Margaret Shanahan
Deputy Director
M.I.T. Radioactivity Center

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